

# Exercises

E13.2 [14N] Prerequisites: [0T5]. Let  $f : \mathbb{R} \rightarrow \mathbb{R}$  be a bounded function. Show that the set of discontinuity points of the second type is countable at most (i.e. the points  $z$  where the lateral limits exist but  $\lim_{x \rightarrow z+} f(x) \neq \lim_{x \rightarrow z-} f(x)$ , see [43]).